

WHAT IS CLAIMED IS:

1. A developing device, comprising:

5 a toner supplying roller configured to supply a one-component toner for developing an image;

a developing roller configured to transfer the one-component toner to a developing position by performing a developing rotation in an image forming operation and to move away from the developing position;

10 a sealing member arranged in a vicinity of the developing roller and configured to seal the one-component toner within the developing device; and

a toner layer regulating roller arranged in contact with the developing roller and configured to lock a rotating operation in the image forming operation, to regulate the one-component toner which adheres on a surface of the developing roller into a thin layer, and to freely follow the developing roller in a non-image forming operation.

20 2. The developing device according to Claim 1, wherein the developing roller performs the developing rotation subsequently after a reverse rotation in the non-image forming operation.

25 3. The developing device according to Claim 1, wherein the developing roller sequentially performs a

reverse rotation and the developing rotation in the non-image forming operation of a setup operation of the developing device.

5 4. The developing device according to Claim 1,
wherein the developing roller sequentially performs a reverse rotation and the developing rotation in the non-image forming operation after the developing roller is unused for a period longer than a predetermined period.

10

 5. The developing device according to Claim 1,
wherein the developing roller performs a reverse rotation in the non-image forming operation during a time that a non-toner covered region of the developing roller passes by the
15 developing position.

 6. The developing device according to Claim 1,
wherein a rotation number of the developing roller in the non-image forming operation is smaller than the rotation
20 number of the developing roller in the image forming operation.

 7. A developing device, comprising:
 means for supplying a one-component toner for
25 developing an image;
 means for transferring the one-component toner to a

developing position by performing a developing rotation in an image forming operation and for moving away from the developing position;

means arranged in a vicinity of the means for
5 transferring for sealing the one-component toner within the developing device; and

means arranged in contact with the means for
transferring for locking a rotating operation in the image forming operation, for regulating the one-component toner
10 which adheres on a surface of the means for transferring into a thin layer, and for freely following the means for transferring in a non-image forming operation.

8. The developing device according to Claim 7,
15 wherein the means for transferring performs the developing rotation subsequently after a reverse rotation in the non-image forming operation.

9. The developing device according to Claim 7,
20 wherein the means for transferring sequentially performs a reverse rotation and the developing rotation in the non-image forming operation of a setup operation of the developing device.

25 10. The developing device according to Claim 7, wherein the means for transferring sequentially performs a

reverse rotation and the developing rotation in the non-image forming operation after the means for transferring is unused for a period longer than a predetermined period.

5 11. The developing device according to Claim 7, wherein the means for transferring performs a reverse rotation in the non-image forming operation during a time that a non-toner covered region of the means for transferring passes by the developing position.

10

 12. The developing device according to Claim 7, wherein a rotation number of the means for transferring in the non-image forming operation is smaller than the rotation number of the means for transferring in the image forming
15 operation.

 13. A method of image developing, comprising:
 providing a developing device which includes a developing roller;
20 arranging the developing roller at a developing position to perform an image developing;
 moving the developing roller away from the developing position in a non-image forming operation;
 causing the developing roller to sequentially perform a
25 reverse rotation and a developing rotation; and
 setting the developing roller back to the developing

position.

14. The method of image developing according to Claim 13, further comprising:

5 detecting whether the developing device is new; and
carrying out the steps of providing, arranging, moving, causing, and setting when the developing device is detected as new.

10 15. The method of image developing according to Claim 13, further comprising:

detecting whether the developing device is unused for a period longer than a predetermined period; and

15 carrying out the steps of providing, arranging, moving, causing, and setting when the developing device is unused for a period longer than a predetermined period.

16. The method of image developing according to Claim 13, wherein the developing roller performs the reverse
20 rotation in the non-image forming operation during a time that a non-toner covered region of the developing roller passes by the developing position.

17. The method of image developing according to Claim
25 13, wherein a rotation number of the developing roller in the non-image forming operation is smaller than the rotation

number of the developing roller in the image forming operation.

18. A process cartridge, comprising:

5 an image bearing member; and

a developing device which comprises,

a toner supplying roller configured to supply a one-component toner for developing an image;

10 a developing roller configured to transfer the one-component toner to a developing position by performing a developing rotation in an image forming operation and to move away from the developing position;

15 a sealing member arranged in a vicinity of the developing roller and configured to seal the one-component toner within the developing device; and

20 a toner layer regulating roller arranged in contact with the developing roller and configured to lock a rotating operation in the image forming operation, to regulate the one-component toner which adheres on a surface of the developing roller into a thin layer, and to freely follow the developing roller in a non-image forming operation.

25 19. The process cartridge according to Claim 18, wherein the developing roller performs the developing

rotation subsequently after a reverse rotation in the non-image forming operation.

20. The process cartridge according to Claim 18,
5 wherein the developing roller sequentially performs a reverse rotation and the developing rotation in the non-image forming operation of a setup operation of the developing device.

21. The process cartridge according to Claim 18,
10 wherein the developing roller sequentially performs a reverse rotation and the developing rotation in the non-image forming operation after the developing roller is unused for a period longer than a predetermined period.

15 22. The process cartridge according to Claim 18, wherein the developing roller performs a reverse rotation in the non-image forming operation during a time that a non-toner covered region of the developing roller passes by the developing position.

20

23. The process cartridge according to Claim 18,
wherein a rotation number of the developing roller in the non-image forming operation is smaller than the rotation number of the developing roller in the image forming
25 operation.

24. A process cartridge, comprising:

an image bearing member; and

a developing device which comprises,

means for supplying a one-component toner for
developing an image;

means for transferring the one-component toner to
a developing position by performing a developing
rotation in an image forming operation and for moving
away from the developing position;

means arranged in a vicinity of the means for
transferring for sealing the one-component toner within
the developing device; and

means arranged in contact with the means for
transferring for locking a rotating operation in the
image forming operation, for regulating the one-
component toner which adheres on a surface of the means
for transferring into a thin layer, and for freely
following the means for transferring in a non-image
forming operation.

25. The process cartridge according to Claim 24,
wherein the means for transferring performs the developing
rotation subsequently after a reverse rotation in the non-
image forming operation.

26. The process cartridge according to Claim 24,

wherein the means for transferring sequentially performs a reverse rotation and the developing rotation in the non-image forming operation of a setup operation of the developing device.

5

27. The process cartridge according to Claim 24, wherein the means for transferring sequentially performs a reverse rotation and the developing rotation in the non-image forming operation after the means for transferring is unused
10 for a period longer than a predetermined period.

28. The process cartridge according to Claim 24, wherein the means for transferring performs a reverse rotation in the non-image forming operation during a time
15 that a non-toner covered region of the means for transferring passes by the developing position.

29. The process cartridge according to Claim 24, wherein a rotation number of the means for transferring in
20 the non-image forming operation is smaller than the rotation number of the means for transferring in the image forming operation.